

Fig. 3.—General view of Old Baldy and Cucamonga Mountains looking toward north-northeast. 13, 13. The round head of Old Baldy at the head of San Antonio Canyon. 14, 14. The summit of the highest peak, Cucamonga.

In the single view, fig. 3, also taken with the same rear combination and ray filter, the following points will be noticed:

13, 13. The round head of Old Baldy, at the head of San Antonio Canyon, which is 15 miles beyond the head of Cucamonga Canyon.

14, 14. The summit of the highest peak, Cucamonga.

Fig. 3 was taken about 7 a. m. and shows with what rapidity the storm clouds of three days previous have been swept from the sky by the north wind. We expect danger from the frosts in the citrus orchards succeeding a day of such clear, cold weather on the mountains, but in nearly all cases the frost is happily averted by a slight wind, and the thermometer goes to its lowest point during the hour before sunrise, dropping say from 36° to 26° in an hour, and rising again after the sun comes up. These north winds are charged with electricity, which visibly affects the hair in the manes and tails of horses, and causes an exceeding irritability and depressing headache in some human beings. These conditions generally exist for a period of three days, and although the wind blows hard it rarely causes much damage to trees or fruit in the orchards.

## THE EARTHQUAKE OF DECEMBER 5, 1903, AT WASH-INGTON, D. C.

By Prof. Charles F. Marvin.

The seismograph of the Weather Bureau recorded a slight earthquake from a very distant origin on the night of December 4-5, 1903. The apparatus by which this record was made has already been described in the Monthly Weather Review for June, 1903, page 271. The north and south component of horizontal motion only is recorded.

The "principal portion" of the earthquake was noticeably short; the first portion consisting of only two or three waves of small amplitude, but relatively long periods (fifteen seconds for the duration of one complete vibration) followed by a single, relatively long wave with about the same period, and representing a displacement of the ground of about 0.26 of a millimeter (double amplitude). The period of the pendulum is 26 seconds, and the magnification 10.

The following table gives the corrected times of the principal phases of this earthquake:

December 5, 1903, a. m., seventy-fifth meridian time.

| , _ , _ , _ , _ , _ , _ , _ , _ , _   | 7 | 939 | 9  | h. m. s.     |  |
|---------------------------------------|---|-----|----|--------------|--|
| First preliminary tremor              |   |     |    |              |  |
| Second preliminary tremor             |   |     |    | 0 32 32 a.m. |  |
| Duration of first preliminary tremor  | 0 | 6   | 12 |              |  |
| Duration of second preliminary tremor |   |     |    |              |  |
| Principal portion began               |   |     |    | 0 35 45 a.m. |  |
| Principal portion ended               |   |     |    | 0 36 50 a.m. |  |
| Duration of principal portion         | 0 | ) 1 | 15 |              |  |
| Duration of end portion               | 0 | 24  | 42 |              |  |
| End of earthquake                     |   |     |    | 1 1 32 a.m.  |  |

This is the third earthquake that has been distinctly recorded at the Weather Bureau since the present seismograph was installed about the middle of February, 1903.

## MOUNT WHITNEY AS A SITE FOR A METEOROLOGICAL OBSERVATORY.

By ALEXANDER G. McAdie, Professor of Meteorology.

In reply to a letter dated June 15, 1903, from the Chief of the Weather Bureau, asking for a report on the advantages and disadvantages of Mount Whitney as a site for a meteorological observatory in connection with the proposed astrophysical observatory, I have the honor to submit the accom-